

PREFACE

This volume contains papers by invited speakers of the symposium “Quantum Computation: Are the DiVincenzo Criteria Fulfilled in 2004?” held at Kinki University in Osaka, Japan, during the period of May 7-8, 2004. The aim of this symposium was to examine the potential of various physical realizations of a quantum computer in view of the DiVincenzo criteria by experts in each realization.

It is our sad duty to announce that Martti M. Salomaa, one of the editors and the contributors, has passed away. We would like to dedicate this volume to his memory. We have reproduced the obituary for Martti Salomaa^a prepared by his longtime friend Professor Rainer Salomaa and his former student Dr Saku Lehtonen.

Dr David DiVincenzo kindly contributed to this symposium using a video conference system, a prerecorded video tape and a powerpoint file from Chicago. The attached CD-ROM contains his video contribution and the powerpoint file. Also included in the CD-ROM is the powerpoint file prepared by Akio Hosoya for his contribution to the symposium.

Authors were asked to prepare their contribution in a self-contained way and therefore we expect that each contribution serves as an excellent textbook for one quarter/semester postgraduate course.

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Osaka, November 2005

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^aThe original obituary is found at <http://focus.hut.fi/marttisalomaa3.htm>.